PASZKOWSKI, Bohdan; WOLINSKI, Wieslaw

Vacuum-tight seals, germanium to glass, and germanium to kovar. Przegl elektroniki 3 no.ll:648-651 N '62.

1. Katedra Radiotechniki, Politechnika, Warszawa.

ACCESSION MR: AP4011798

7/0053/63/000/012/0682/0690

AUTHOR: Wolfinski, Wieszaw; Adamowicz, Tadeusz

TITIE: Pulsed infrared generators

SOURCE: Przeględ elektroniki, no. 12, 1963, 682-690

TOPIC TAGS: IR, IR generator, pulsed IR generator, photocathode, striking potential, Ag-O-Cs cathode, AR-filled tube, Kr-filled tube, Xe-filled tube, light source, pulsed light source

ABSTRACT: The article reviews some of the research work performed on pulsed light sources for IR purposes. Low-pressure tubes filled with Ar, Kr and Xe intended for operation with a type Ag-O-Cs photocathode are described. All tube electrodes are tungsten and primary electrodes are lined with tungsten coils. Striking potential as a function of filler gas pressure was tested on a pumping unit consisting of a Devag 40/1 pump, OF30 oil diffusion pump, resistance gage, oil manameter and bottles containing spectrally-pure Ar, Kr and Xe. Three identical tubes were soldered to the pump stand passage. One of these

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ACCESSION NR: AP4011798

gases was introduced into a tube after prior degassification of the glass and electrodes, and the striking potential was measured in an electrical system. Measurements were carried out in a manner to attain a product value p x d = 600 tropospheres/cm (d - electrode spacing in cm; p - pressure in tr). After the characteristic U_z = F(p) had been measured, the tubes were removed from the pump passage, each at a different pressure of 20, 40, and 60 tr; three series of tubes for Ar, Kr and Xe filling were thus obtained. The Paschen curve for the characteristic U_z = f(p x d) is in harmony with theory. Minimal striking potential is lowest for Xe, somewhat higher for Kr and highest for Ar. Values of the product (pd) opt corresponding to (U_z) mindecrease with increase of the atomic mass of the gas. Photo flash bulbs were also tested. Xe works very well in the system Ag-O-Cs - photo flash bulb in IR as well as in UV. The relative radiation energy received by an Ag-O-Cs photocathode illuminated by tubes filled with Ar, Kr and Xe increases with rise of energy supplied to the tubes. Authors conclude that a tube filled with Xe under a pressure of 40 to 60 tr is the best one to use in conjunction with a photocathode of Ag-O-Cs type. Orig. art. has: 11 figures.

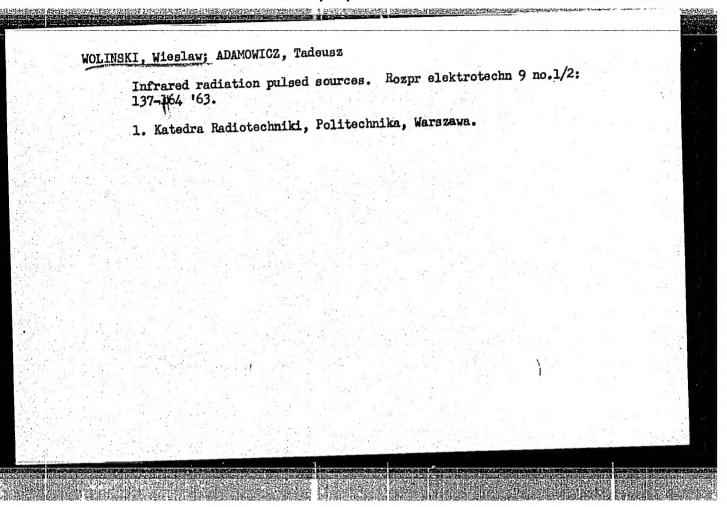
ASSOCIATION: Katedra przyrządów elektronowych (Department of Electronic Devices)

Card 2/12

PASZKOWSKI, Bohdan; WOLINSKI, Wieslaw

Semitransparent Ag-O-Cs photocathode. Przegl elektroniki 4 no.8:
430-433 Ag '63.

1. Katedra Przyrzadow Elektronowych, Politechnika, Warszawa.



ACCESSION NKO DEPOS Paszkowski, Bohdan; Wolinski, Wieslaw; Adamowicz, Tadeusz; B Nowicki, Marian; Stefaniak, Tadeusz; Kowalski, Andrzej

TITLE: He-Ne gas laser of the Warsaw Polytechnic Institute

SOURCE: Przeglad elektroniki, no. 7, 1964, 313-319

TOPIC TAGS: helium neon laser, laser mode excitation, laser modulation, laser output analysis, laser material

ABSTRACT: The new He-Ne gas laser of the Katedra Przyrzadow Elektronowych Politechniki Warszawskiej features a steel optical bench on which the optical system and laser tube are mounted coaxially. An improved arrangement of the eccentric mirrors allows them to be inserted from the outside and to be centered in their sockets. Three micrometer screws hold them perpendicular to the optical axis of the system, and small deflections are made possible by additional

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L 11/154-65 ACCESSION NR: AP4045929

regulating screws. The resonator mirrors are of crown glass covered with 13 dielectric layers of ZrS and MgP2, with a radius of curvature of 1300 mm. At 1.153 microns, the coefficient of reflection was 99.5 and 39.97% and the coefficient of transmission was 0.3 and 0%, without and with a gold coating, respectively. The quarty liser tuce, 11) mm long and 12 mm. ... diameter, was found to resist power leakage only when the side quartz-glass windows were fused directly to the tube by a torch and cooled gradually. Setting and adjusting of the entire system was effected with the aid of an autocollimator. medium was a He-Ne mixture at a helpum-to-neon pressure ratio of 0.7 to 0.1 mm Hg. Excitation was by means of an external high frequency (f = 30 and 40Mc) or an internal DC field. Maximum tube power is produced by a larger number of electrodes (5--8 per meter), whereas the greatest degree of output power modulation and minimum distortion is achieved with the smallest number of electrodes (3 per meter). The laser radiation power was determined with the beach thermally uncompensated, using a germanium photodiode standardized against a black body. To obta.m.

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the true radiation power, account must be taken of the damping by the filter-objective system, which amounts to 50.7%. Other laser characteristics are: maximum output rate 12.5 μ w/w, mode stability better than 8 hours, and divergence angle \approx 5'.

ASSOCIATION: Katedra Przyrzadow Elektronowych Politechniki Warszawskiej (Department of Electronic Devices, Warsaw Polytechnic); Centralne Laboratorium Aparatury Pomia-Towej i Optyki (Central Laboratory of Measurement and Optical Apparatus); Polskie Zaklady Optyczne (Polish Optical Plants)

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ENCL: 00

SUB CODE: EC

NO REF SOV: 000

OTHER: 003

Card 3/3

WOLINSKI, W.

Correlation between the optical and electronic properties of the semitransparent photocathods of Ag-O-Cs type. Bul Ac Pol tech 12 no.7:529-540 '64.

1. Department of Flectron Instruments of the Technical University, Warsev. Presented by J. Groszkowski.

WOLINSKI, W.; ADAMOWICZ, T.; NOWICKI, M.; KAZMIROWSKI, A.

Optimum composition of the He and Ne mixture in a laser.
Bul Ac Pol tech 12 no.7:541-546 '64.

1. Department of Electron Instruments of the Technical University, Warsaw. Presented by J. Groszkowski.

L 19764-65 AFWL/RAEM(a)/ESD(gs)/ESD(t)

ACCESSION NR: AP5001177

P/0034/64/000/012/0558/0560

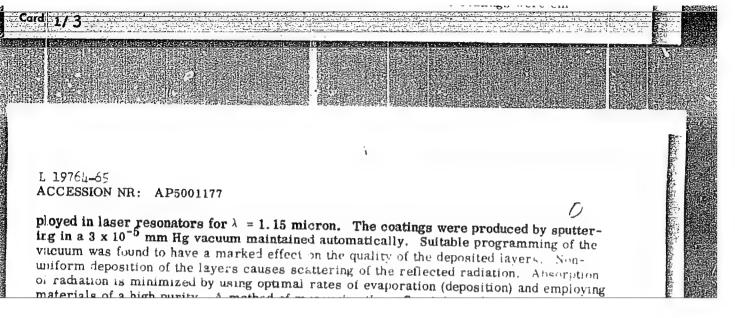
AUTHOR: Stefaniak, T. (Master engineer): Wolinski, W. (Doctor, Engineer)

TITLE: Multilayer selective dielectric mirrors for a wavelength of 1.15 microns

SO RCE: Pomiary, automatyka, kontrola, no. 12, 1964, 558-560

TOPIC TAGS: dielectric mirror, multilayer mirror, selective mirror, quarterwave dielectric coating, metal dielectric mirror, laser optics, helium neon laser, mirror ref ectivity

ABSTRACT: The paper describes the principles of multilaver quarterwave diejectric coatings showing the properties of selective mirrors of high redectivity. The others of retraction of the payors afternate, starting from a diejectric substrate they are night new high, etc. A curve of the theoretical reflectivity of such a multilayer system as a function



AfSOCIATION: Centralne Laboratorium Aparatow Pomiarowych i Optyki, Warsaw (Central Laboratory of Measuring Apparatus and Optics); Katedra przyrzadow elektronowych Politechniki Warszawskiej (Department of Electronic Instruments, Warsaw Polytechnic Institute)

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ACCESSION NR: AP5001177

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ATD PRESS: 3160

"APPROVED FOR RELEASE: 04/03/2001 CIA-R

CIA-RDP86-00513R001961720007-8

AUTHOR: Wolinski, Wieslaw (Doctor, Engineer); Badziak, Wojciech (Master engineer)

ORG: Department of Electronic Instruments, Warsaw Polytechnic (Katedra Przyrzadów Elektronowych Politechniki Warszawskiej)

TITLE: Calorimetric device for measuring the energy and power output of lasers

SOURCE: Pomiary automatyka kontrola, no. 10, 1966, (supplement Optyka, no. 3, 1966, P44-P-47)

TOPIC TAGS: calorimeter, laser energy, measuring instrument

ABSTRACT: Following a review of the theory of an optical method for measuring energy and power output of continuous pulse lasers by means of an absorption element indicating resistance changes, the design of a new calorimeter for this purpose is described. The absorption element in this optical calorimeter is a brush made of fine, enameled copper wire in Fig. 1.

Frontal surface

thread

removal

Figure 1. Absorption element of the develope calorimeter

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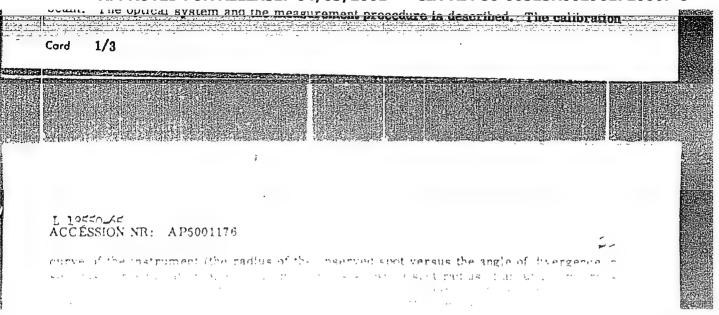
brushes, one compensating stabilized by an element is express their discussions and	o serves as a tem of which serves a element. They ar a Zener's diode. capable of almos gratitude to Drs ad for help in ca art, has: 28 for	s the opera e connected The calib t 100% abso . Swit and libration o	ating absorpt I in a bridge bration of th orption of ra K. Braclawsk of the calori	ion element system pow e instrumen diation. T i for valua	the other as a verted by a volta tindicates that he authors wish ble comments and	a ge t such to d
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TITLE: A method of measuring the angle of divergence of a laser beam

SOURCE: Pomiary, automatyka, kontrola, no. 12, 1964, 556-557

TOPIC TAGS: laser optics, beam divergence, refractive index

ABSTRACT: The paper describes a method of measuring the angle of divergence of a laser intermediate in page of the affine and th



ASSOCIATION: Katedra Przyrzadow Elektronowych Politechniki Warszawskiej (Department of Electronic Instruments of the Warsaw Polytechnic Institute); Polskie Zaklady Optyczne

(Polish Optical Works)

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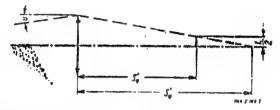


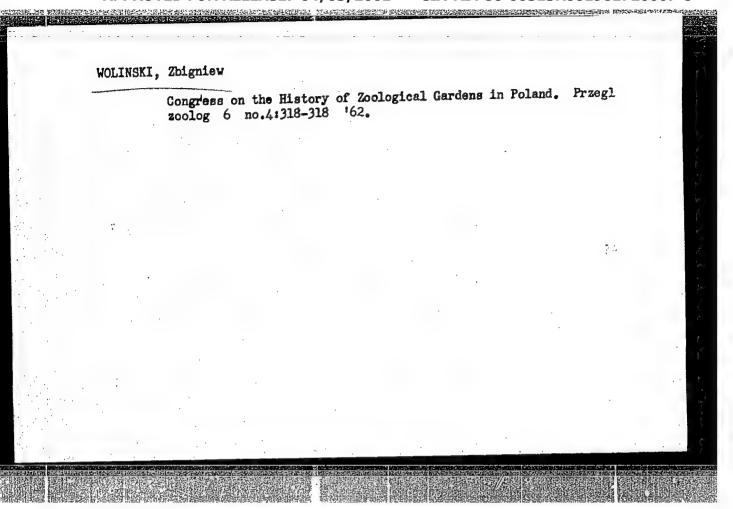
Fig. I. Diagram showing how the image distance changes with the divergence of the incident beam

u - Angle of divergence of the beam; S_0^* - distance to the image for parallel rays; S_0^* - distance to the image for diverging beams; S_0^* - diameter of the spor.

· 特性致動物學 的复数医型动物 (1944)。 克勒特·

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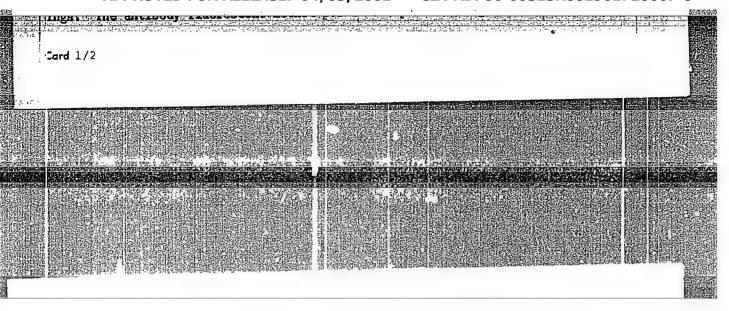
AUTHOR: Franck, J. (Franck, Yu.); Wolfova, J. (Voltfova, Ya.)

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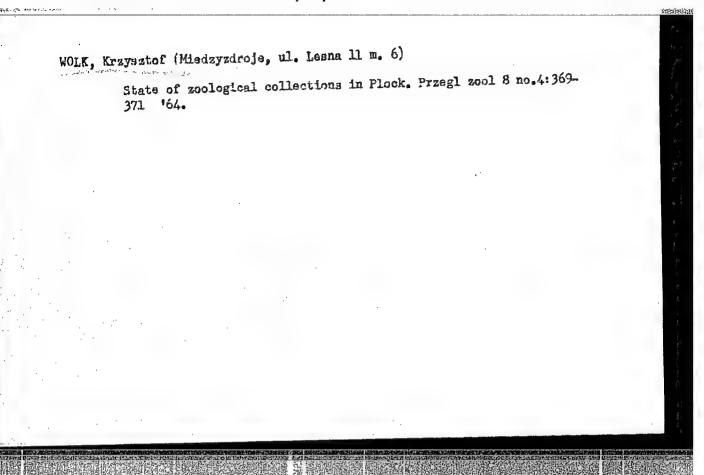
COUPCE: Folia microbiologica. v. 10, no. 2, 1965, 85-92

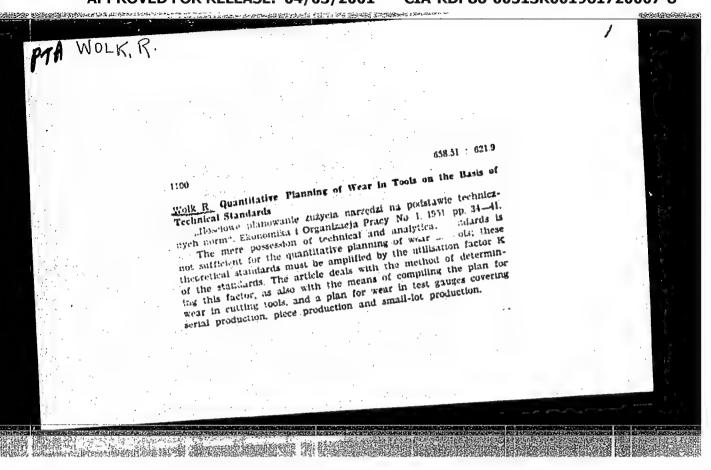
TOPIC TACS: Pasteurella tularensis, fluorescent antibody, antigen, antibody, serum, tularemia, epidemiology, diagnosis

(BSTRACT: A tularemia epidemic early in 1964 in Czechoslovakia provided the author with an expertuality to test in practice the fluorescent antibody method of lidentifications. The protection of the literature of infected animals from the attacks and interest and interest processing the practice of the fluorescent and the practice of th









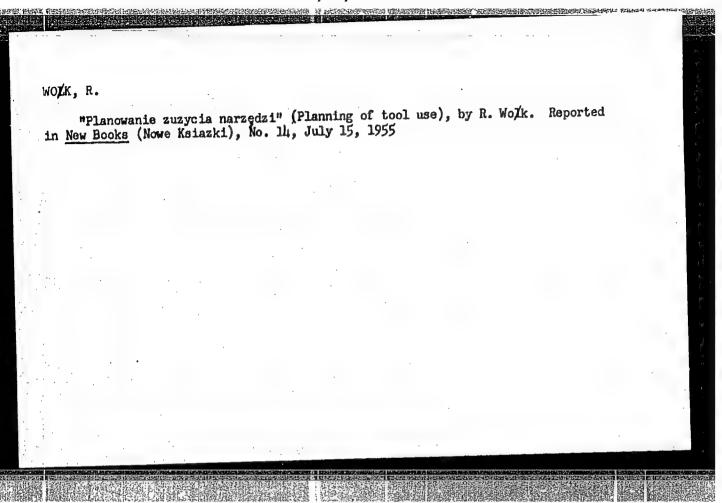
WOLK, R.; PASZKOWSKI, J.

Technological classification of elements stamped out of steel sheets and generalized technological processes; introduction to standardization of the technological processes of stamping machinery, p.372.

MECHANIK. (Stowarzyszenie Inzynierow i Technikow Mechanikow Polskich) Warszawa, Poland. Vol.28, no.10, Oct. 1955.

Monthly list of East European Accession. (EFAI) IC, Vol.9, no.1, Jan.1960

Uncl.



WOLK, R.

Technical standardization of time of production of eccentric stamping machines. p.225.

MECHANIK, (Stowarzyszenie Inzynierow i Technikow Mechanikow Polskich) Warszawa, Poland. Vol.28, no.6, June 1955.

Monthly list of East European Accession. (EEAI) LC, Vol.9, no.1, Jan.1960.

Uncl.

WOLK, R.

WOLK, R. The influence of wear and tear and of grinding on the edging of cutting tools. (Too be contd.) p. 51

Vol. 29, no. 2, Feb. 1956 MECHANIK TECHNOLOGY Warszawa, Poland

So: East European Accession, Vol. 6, no. 2, 1957

WOLK, R.

A sample of simplified computation of standards of work time by using an analytical method of computation. p. 221.
(MECHANIK. Poland. Vol. 29, no. 6, June 1956.)

So: Monthly List of East European Accessions (EEAL) IC, Vol. 6, no. 7, July 1957. Uncl.

WOLK, R.

The profitability of tooling for small-and medium=scale serial production. p. 79
(MECHANIK. Poland Vol. 30, no.2, Feb. 1957)

So: Monthly List of East European Accessions (EEAL) LG, Vol. 6, no. 7, July 1957, Uncl.

WOLK, R.

Economic effects of the use of carbide tips and the problem of the use of domestic tips.

P. 19. (MECHANIK) (Warszawa, Poland) Vol. 31, no. 1, Jan. 1958

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

WOLK, R.

Economic tooling and economic progressive technology in production of machine tools, p. 550

MECHANIK. (STowarzyszenie Inzynierow i Technikow Mechanikow Polskich) Warszawa, Poland, Vol. 32, no. 9, Sept. 1959.

Monthly list of East European Accession (EEAI) LC, Vol. 9, No. 1, Jan. 1960

Uncl.

WOLK, K.

Ornithological observations at the projected Wolin National Park.

p. 40 (Chronomy Przyrode Ojczysta. Vol. 13, no. 5, Sept./Oct. 1957. Krakow, Poland)

Monthly Index of East European Accessions (EEAI) IC. Vol. 7, no. 2, February 1958

WOLK, Elizbieta; WOLK, Krsysztof

Ormithologic notes from the Carpathian Mountains. Przegl zcolog 6 no.3:226-228 '62.

1. Muzeum Wolinskiego Farku Marodowego, Miedzyzdroje.

WOLK, Elizbiota; WOLK, Krsysztof

Ornithologic notes from the Carpathian Mountains. Przegl zoolog 6 no.3:226-228 62.

1. Muzeum Wolinskiego Farku Narodowego, Miedzyzdroje.

WOLK, 2.

"Investigational method of settling form acreage and soils classification." p. 85.

(Przeglad Geodezyjny. Vol. 9, no. 3, March 1953. Warszawa.)

S0: Monthly Last of East European Accession, Vol. 3, No. 2, Library of Congress, Feb. 1954, Uncl.

A half year of general inventorying. p. 257. ACTA
PHYSICA POLONICA. Warszawa. Vol. 12, No. 7, July 1956.

East European Accessions List (EEAL) Library of Congress
Vol. 5, No. 11, August 1956.

WOLK, Zygmunt, mgr inz.

Individual errors in the scale interval value or by one in the number setting; their origination, specific importance and ways of avoiding. Przegl geod 35 no.1:24-28 Ja 163.

WOLK, Zygmunt, mgr inz.

Individual errors concerning the scale interval value. Pt.2. Przegl geod 35 no.4:167-170 Ap '63.

WOLKENBERG, Andrzej Studies on the potential and corrosion resistance of magnes

Studies on the potential and corrosion resistance of magnesium zinc alloys in one normal solution of potassium chloride. Archiw hutn 9 no.2:237-241 164.

WOLKENBERG, Andrzej

Energy conversion based on the photoelectric, thermcelectric and thermodielectric effects. Przegl elektroniki 5 no.7:326-334 J1 '64.

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001961720007-8

37739

26.2520 5.4700 S/196/62/000/008/002/017 E114/E135

AUTHOR:

Wolkenberg, Andrzej

TITLE:

Magnesium element with organic depolariser

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.8,1962, 11, abstract 8 A53. (Przegl. elektron., v.2,

是一个大学的一个大学的,我们也是一个大学的,我们就是一个大学的,我们就是一个大学的一个大学的一个大学的一个大学的一个大学的一个大学的一个大学的人,但是一个大学的

no.4, 1961, 330-333) (in Polish)

Characteristics are described of a primary cell with TEXT: a magnesium anode and a cathode, manufactured in accordance with the normal practice for manganese cells but with dinitrobenzol as a depolariser. The electrolyte in the cell has the following composition: MgBr₂ 550, LiCrO₄ 1 g/litre. The composition of the depolariser is: dinitrobenzol 33.3%, soot 66.7%, or dinitrobenzol 16.6%, soot 83.4%. The e.m.f. of one cell is 1.59 volts, and does not depend on the composition of the depolarising compound. A battery of six such cells has the initial voltage 8.38 volts when discharging through a resistance of 300 ohms (20 milliamps) and the final voltage 5.67 volts, the energy 562 Watt-minutes (3.3 Watt-minutes per gram), capacity Card 1/2

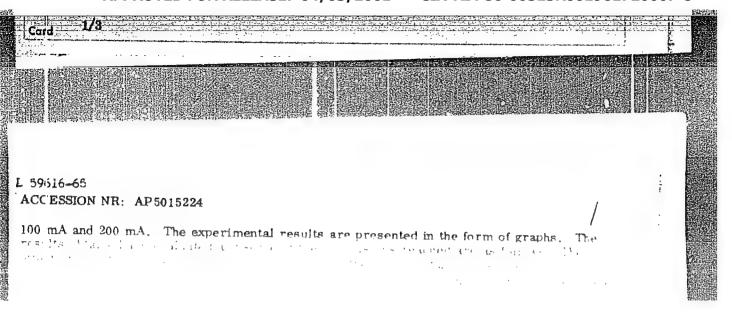
Magnesium element with organic ... \$/196/62/000/008/002/017 E114/E135

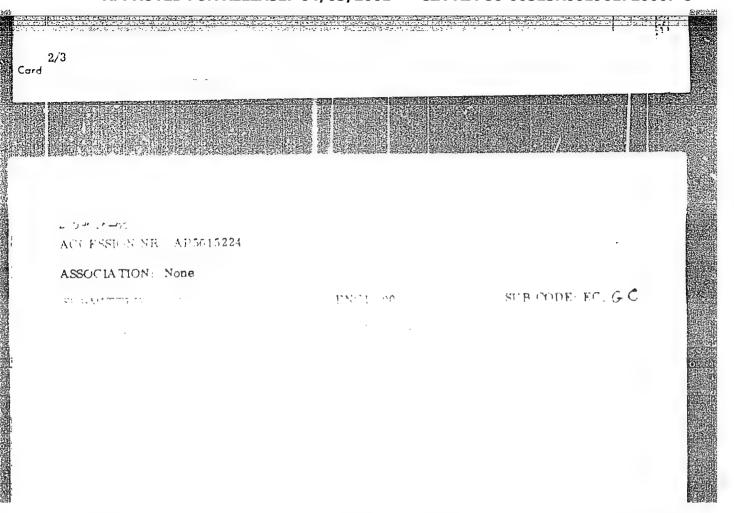
1.51 amp.hours. At -10 °C, the energy is 252 Watt-minutes, and the capacity 0.82 amp.hours. After three months of shelf life, the energy is 527 watt.minutes and the capacity 1.64 amp.hours. One cell of the magnesium battery costs 11% less than a similar manganese cell. The specific energy of a magnesium cell is 60% larger than that of a manganese cell and only 26% less than that of a silver-zinc cell. 6 references.

[Abstractor's note: Complete translation.]

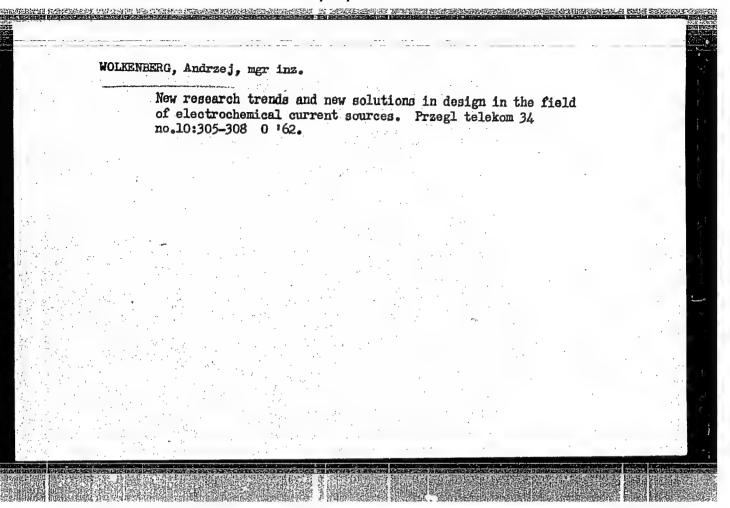
Card 2/2

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AUTHOR: Wolkenberg, A.	621, 389	/ /
TITLE The effect of preliminary of	hemical treatment on the electrica	l parameters of
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L 05311-67 SOURCE CODE: PO/0099/66/040/002/0333/0334 ACC NR. AP7000229 WOLKENBERG, A., of the Tele- and Radiotechnology Institute (Instytut Telei Radiotechniki), Warsaw. Electrochemical and Photoelectrochemical Properties of the Semiconducting Elements of Group IV" Warsaw, Roczniki Chemii, Vol 40, No 2, 1966, pp 333-334. Abstract: Variable resistance silicon electrodes were used for determining polarization curves in the dark and under illumination. Anodic polarization of silicon is in accordance with generalized Tafel equation. The magnitude of photoelectrochemical effect for p and n type silicon electrodes depends on the specific resistivity of silicon, and increases with an increase of the latter. The author thanks Doctor J. Sobkowski for discussion of the problems. The work was carried out at the Department of Physical Chemistry at Warsaw University ATRS: 36,0027 TOPIC TAGS: electrochemistry, photoelectric effect, resistivity, electrode polarization SUB CODE: 07,09,20 / SUBM DATE: 06 Aug 65 / ORIG REF: 005 / OTH REF: SOV REF: 003



5001-66 FSS-2/ETC/EVIG (m) ACC NR: AP5026673 PO/0053/65/000/010/0498/0504 621.352 AUTHOR: Wolkenberg, A.; Grzegorzewicz, J. TITLE: Investigation of secondary storage batteries having an Ag/AgO electrode SOURCE: Przeglad elektroniki, no. 10, 1965, 498-504 TOPIC TAGS: silver zinc battery, storage battery, nickel cadmium battery ABSTRACT: The electrical properties of Ag-Zn accumulators of Polish production are described. The experimental investigation of the electrical properties of Ag-Zn accumulators produced in the CLAiO (Type C10) is described. The accumulators tested were found to maintain their nominal capacity after being stored for two months; after 12 months storage they had only 50% of their initial capacity. They were compared with similar lead-acid and alkaline accumulators. The shortcomings of Ag-Zn accumulators are discussed (high cost of production. low life-time. poor performance at low temperatures: they last only 30 - 40 dischargecharge cycles). It is concluded that the Ag-Zn accumulator is a special source of electrical energy to be used profitably only for some special purpose; no widespread use of this type of accumulator is recommended. The second part of the paper is devoted to similar investigation of Ag-Cd accumulators. The experiment shows that the capacity of Ag-Cd accumulators depends on the manner of discharging to much greater degree than is the case with Ag-Zn accumu lators. The life-time of Ag-Cd accumulators is somewhat smaller than that of Ag-Zn accumu-Card 1/2 09011402

sures, 7 tables, and 2 formulas.	e worse than Ag-Zn accumula ors thank Engr. <u>C. Nowak</u> for ors discharged by 2 amp curr	ent. Orig. art. has:	5
SOCIATION: None			
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EWT(1)/EWP(1)/EWP(b)/EWA(h) PO/0034/65/000/008/0358/0359 AP5023726 ACCESSION NR: 621.317.335.2:539.23 B AUTHOR: Wolkenberg, Andrzej (Doctor, Engineer) Thin-film capacitors in microelectronics TITLE: SOURCE: Pomiary, automatyka, kontrola, no. 8, 1965, 358-359 TOPIC TAGS: electric capacitance, capacitor, microelectronic component, microelectronic thin film, tantalum, thin film circuit, electric property ABSTRACT: The present article describes the method of fabricating thin-film capacitors and discusses the mechanical and electrical properties required of materials for this purpose. Tantalum is considered to be particularly useful for microelectronic applications. The hypotheses explaining the effect of the size of thin-film capactions on their capacitance per unit area are briefly discussed and formulas for the capacitance of such capacitors are derived following the theoretical investigations of H. Y. Ku and F. G. Uhlman (J. Appl. Phys., 1964, p. 265). The paper points out that possibly the material of the plates of such

capacitors is also a factor determining the capacitance per unit area. Orig. art.

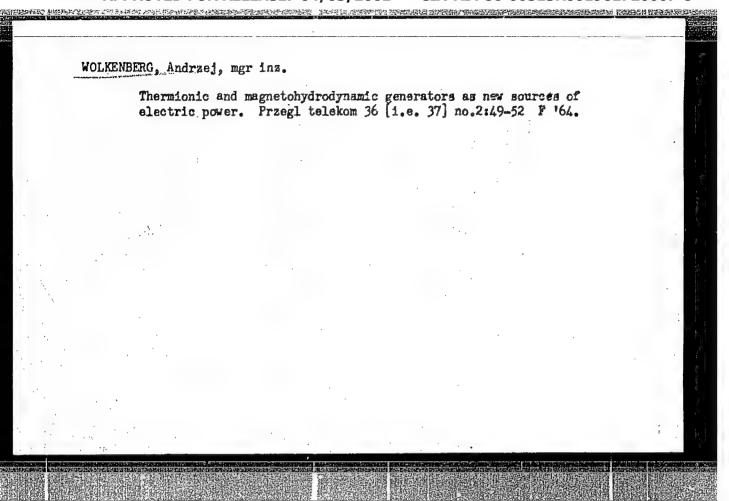
has: 1 figure and 7 formulas.

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1 5058-66 ACCESSION NR: AP5023726			0
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ACCESSION NR AP 5015224 Pro 5052 65-000/005/0212/0216

AUTHOR: Wolkenberg, A. 621,389

TIFLE: The effect of preliminary chemical treatment on the electrical parameters of California alloy likely.

SCURCE: Przeglad elektroniki, no. 5, 1965, 212-216

TOPIC TAGS: semiconductor diode, silicon alloy diode, silicon semiconductor, silicon alloy electric property, silicon alloy etching, semiconductor etching

AESTRACT: The paper describes an experimental investigation carried out to determine the mean resource and the resource and the

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regults obtained are evaluated a	rimental results are presented in the	form of graphs. The	
effect of the etching mathed use	nd some of the conclusions reached	are as follows: The	
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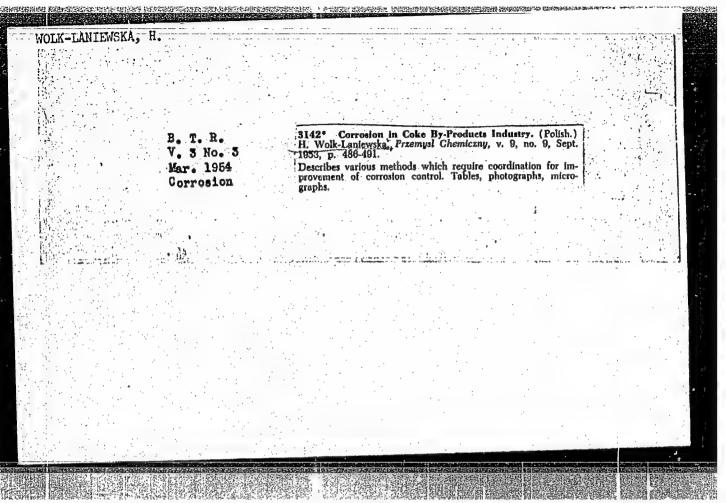
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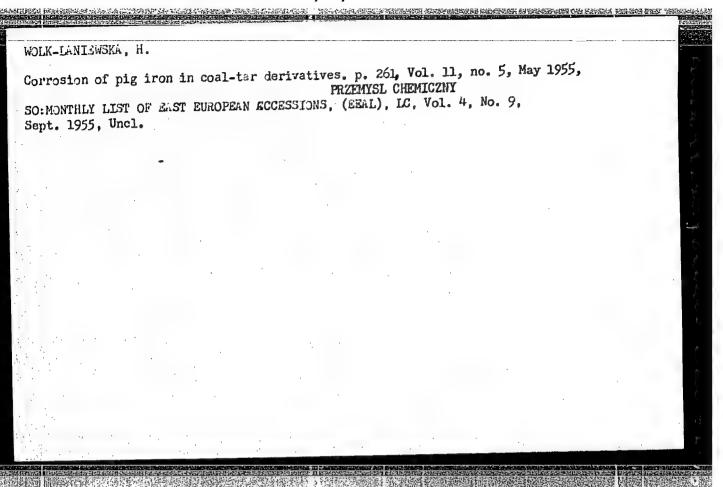
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NO REF SOV: 000 OTHER: 004

PO/0038/65/010/003/0287/0293 ACC NR: AP6000096 AUTHOR: Wolkenberg, Andrzej ORG: none TITIE: Electrochemical and photoelectrochemical properties of the semiconducting elements of Group IV SOURCE: Archivum hutnictva, v. 10, no. 3, 1965, 287-293 TOPIC TAGS: corrosion, specific resistance, corrosion rate, germanium, germanium single crystal, electrode, electrochemistry, photochemistry, hydrogen peroxide ADSTRACT: The purpose of the study was to determine whether the increased corrosion rate of germanium under the effect of exposure to light is associated only with physical phenomena (increased hole concentration), or whether a change in the chemical process also sets in. Earlier investigations underscored the primary role of hole concentration in the corrosion process under the effect of irradiation. To explain the cause of germanium dissolution during corrosion in 0.1 n NaNO3 the chemical composition of the solution in which the germanium electrodes were immersed was investigated. The electrodes were made of type \(\forall \) germanium single crystals of specific resistance [resistivity] 0.7 ohmom, and of type n germanium of specific resistance [resistivity] 0.3 ohmcm. It was found that the increased germanium corrosion rate Card 1/2

1. 26047-66 ACC NR: AP6000096 under the effect of exposure to light is accompanied, in addition to increased hole under the effect of exposure to light is accompanied, in addition to increased hole concentration, by the liberation of H202, the H202 is generated by chemical reactions concentration, by the liberation of H202, the H202 is detected in a similar solucaused by exposing the electrodes to light; no H202 is detected in a similar solucaused by exposing the electrodes to light; no H202 is detected in a similar solucaused by exposing the electrodes to light; no H202 is detected in a similar solucaused by exposing the electrodes to light; no H202 is detected in a similar solucaused by exposing the electrodes to light; no H202 is detected in a similar solucaused by exposing the electrodes to light; no H202 is detected in a similar solucaused by exposing the electrodes to light; no H202 is detected in a similar solucaused by exposing the electrodes to light; no H202 is detected in a similar solucaused by exposing the electrodes to light; no H202 is detected in a similar solucaused by exposing the electrodes to light; no H202 is detected in a similar solucaused by exposing the electrodes of the H202 is detected in a similar solucaused by exposing the electrodes of the H202 is detected in a similar solucaused by exposing the electrodes of the H202 is detected in a similar solucaused by exposing the electrodes of the H202 is detected in a similar solucaused by exposing the electrodes of the H202 is detected in a similar solucaused by exposing the electrodes of the H202 is detected in a similar solucaused by exposing the electrodes of the H202 is detected in a similar solucaused by exposing the electrodes of the H202 is detected in a similar solucaused by exposing the electrodes of the H202 is detected in a similar solucaused by exposing the electrodes of the H202 is detected in a similar solucaused by exposing the electrodes of the H202 is detected in a similar solucaused by exposing the electrodes of the H202					
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POLAND / Chemical Technology. Chemical Products and H Their Applications. Synthetic polymers. Plastics.

Abs Jour: Ref Zhur-Khimiya, 1959, No 4, 13707.

Author: Szuba, Jerzy; Wolk-Laniewska, Helena.

Inst: Not given.

Title: Experiment for Obtaining High-Quality CoumaroneIndone Resins Using Sulfuric Acid as a Catalyst.

Orig Pub: Koks, smola, gaz, 1957, 2, No 2, 65-71.

Abstract: A process was investigated of obtaining light highly-fusible coumarone-indone resins from solvent-naphtha, using H₂SO₄ as a catalyst. The coumarone fraction was used as the original product, specific weight 0.947 at 20°, boiling point 150-199°, content of gum-forming compounds (GC) 20.8%, acids 4.5%, bases - none; experiments were conducted with

Card 1/3

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POLAND / Chemical Technology. Chemical Products and Following Their Applications. Synthetic Polymers. Plastics.

Abs Jour: Ref Zhur-Khimiya, 1959, No 4, 13707.

Abstract: fractions of this product: with coumarone (168-175°), indone (176-182°) as well as 182-190°, and with mixtures of the first two. The fractions investigated were dehydrated with 72% H₂SO₄, were first polymerized with acid of the same concentrations, neutralized with a 15% solution of NaOH, washed with hot water and distilled, after which they were polymerized with H₂SO₄, specific weight 1.84.

Optimal conditions of the process are: content of GC in the fractions of the coumarone indone and indone within 26-28%, in fraction of coumarone equal or greater than 23%; outlay of acid in the polymerization 3.5% (per weight of fraction);

Card 2/3

POLAND / Chemical Technology. Chemical Products and H Their Applications. Synthetic Polymers. Plastics.

Abs Jour: Ref Zhur-Khimiya, 1959, No 4, 13707.

Abstract: temperature of process equal to or less than 36°; neutralization of the polymerized fraction should be carried out with an 18% solution of soda or a powdered form of CaCO3; distillation of the end product must be done with superheated (260°) water vapor. The method developed is recommended for verification under factory conditions. -- K. Zarembo.

Card 3/3

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5/081/62/000/024/019/052 B117/B186

AUTHORS:

Szuba, Yerzy, Wołk-Baniewska, Helena

TITLE:

Production of high-quality cumarone indene resins with boron

trifluoride as catalyst in pilot plants

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24 (II), 1962, 833, abstract 24P94 (Koks, smola, gaz, v. 6, no. 2, 1961, 53 - 58

[Pol.; summaries in Russ., Eng., and Ger.])

TEXT: The superiority of BF3 to H2SO4 was studied. The raw material was fractionated below 168°, at 168 - 175°, at 175 - 182° and above 182°C. All fractions but the first had been polymerized with 72 % H2SO1, at first with 0.5 % for dehydration, and then with 2 % to remove resin-forming substances that polymerize more easily than cumarone and indene. After removal of the resins and washing, the fractions were again distilled. The distillate was dehydrated with CaCl, diluted with benzene, and then polymerized at ~35°C until the content of resin-forming substances became 30%. An ether solution of BF3 calculated for 3 % of resin-forming substance Card 1/3

S/081/62/000/024/019/052 B117/B186

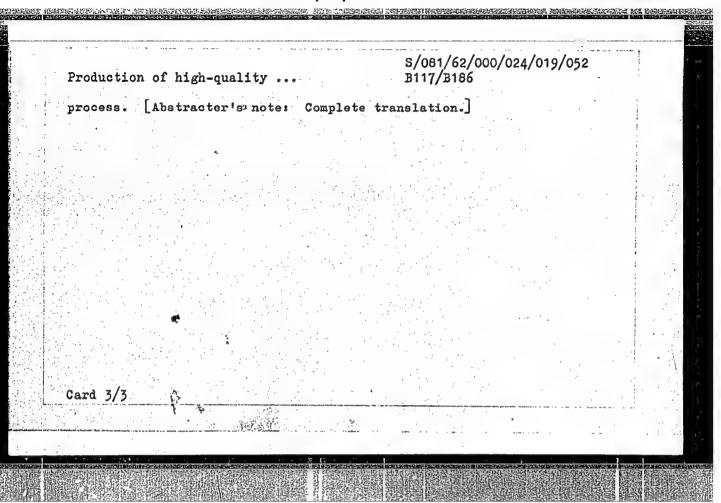
Production of high-quality ...

was passed through a glass tube to the bottom of the apparatus since it had been found that when the solution was introduced under the liquid surface the polymerization was incomplete. After polymerization the product was repeatedly washed with water, neutralized with CaCO₃ powder, filled

into a distillation retort, heated externally and directly supplied with vapor. Benzene, etc. was then distilled off. Direct supply of vapor was stopped at $240-242^{\circ}\text{C}$ and the content of the retort then poured off. All the samples yielded transparent resins with a softening point of $100-141^{\circ}\text{C}$. The yield of resins was $\sim 13\%$ of the initial mixture or < 33% of resin-forming substances. This study and a material balance showed that the production of cumarone indene resins with BF used as catalyst is more

economical for the fraction boiling at 168 - 190°C than for individual fractions with a narrower boiling range. The use of BF3 makes it easier

to maintain optimum conditions and considerably improves the quality of the resulting resins. Yield depends on the care taken in mixing the catalyst and solution. The softening point of the resins depends on the degree of solvent distillation. The small amount of resins obtained in pilot tests was due to the great losses at various steps of the technical Card 2/3

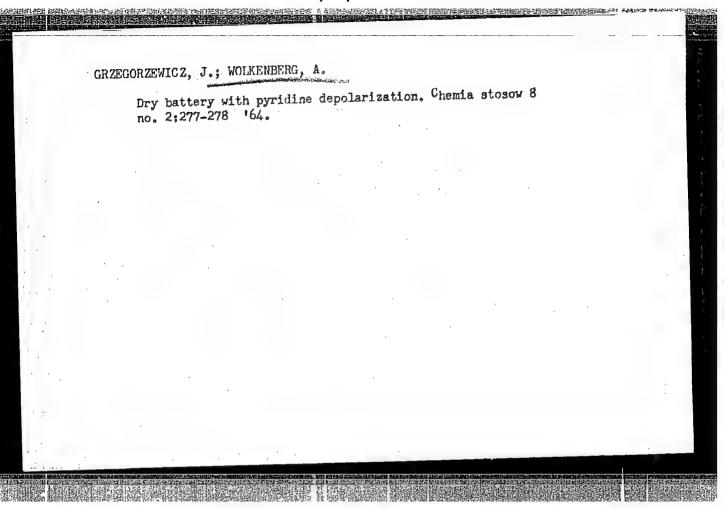


WOLKENBERG, A.

A battery of dichloride-dimethyl hydantoin. p. 160.

TELE-MADIO. (Stowarzyszenie Elektrykow Polskich. Sekcja Telekomunikacjna) Warsawa, Poland. Vo. 4, no. 3, Mar. 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, no. 7, July 1959. Uncl.



Principles of the electronic theory of catalysts on semiconductors. Wiad chem 14 no.11:675-691 N '60.

1. Instytut Chemii Fizycznej, Akademia Nauk Zwiazku Socjali-Stycznych Republik Radzieckich, Moskwa i Uniwersytet im. Lomonosowa, Moskwa.

· Physical Chamistry, Timelies, Combustion, Explosions, forochemistry, Catalysis. CATEGORY : RZhKhim., No 17, 1959, No. 60080 ABS. JOUR. : Bolkenstein, L. **ROHI'UA** : Mechanism of Catalytic Action of Somi-Conductors INSTITUTE TITLE : Rev. chim., 1958, 9, "0 11, 595-97 ORIG. PUB. : Presentation of the earlier published works (Ref. Zhur.-Khimiya, 1958, No. 3, 3891). ABSTRACT 1/1 Card: B-13

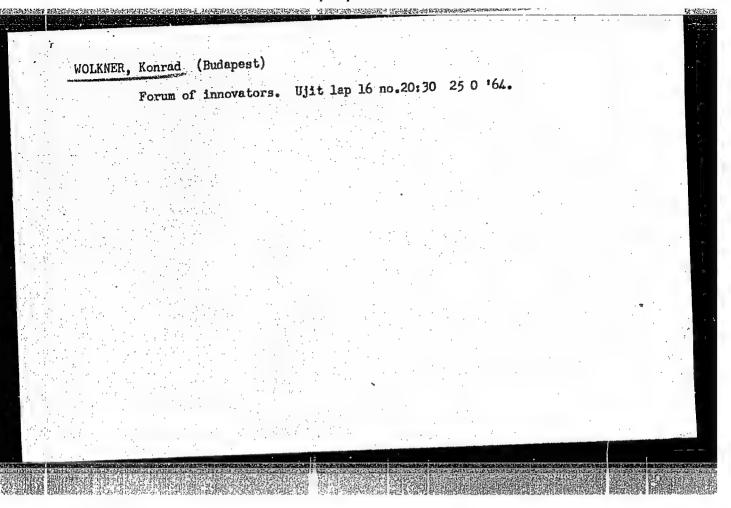
WOLKIND N. I.

O nekotorykh osobennostiakh faz dykhatel nogo tsikla u sobak raznykh tipov nernnoi sistemy. /Certain peculiarities of the phases
of the respiratory cycle in dogs of various types of the nervous
system/ Tr. Fiziol. laborat. Pavlova 16: 1949 p.341-50.

1. Of the Institute of Evolutionary Physiology and Pathology of Higher Nervous Activity imeni Academician I. P. Pavlov of the Academy of Medical Sciences USSR (Director — Academician L. A. Orbeli).

CIML Vol. 19, No. 1 July 1950

WOIKIND, N.I. [Modifications of respiration during sleep in dogs] Ob izmeneniiakh dykhaniia vo vremia sna u sobak. Tr.Fiziol.laborat.Paylova 16:351-359 '49. 1. Of the Institute of Evolutionary Physiology and Pathology of Higher Nervous Activity imeni Academician I.P.Paylov of the Academy of Medical Sciences USSR (Director -- Academician L.A.Orbeli).



WOLKOBER, Zoltan

Ghemical reactions of polyvinyl chloride. Magy kem lap 18 no.7:343-348 Jl '63.

1. Muanyagipari Kutato Intezet.

VARGA, Iraida Sz (Mrs) (Budapest, XIV., Hungaria korut 114); WOLKOBER, Zoltan, dr. (Budapest XIV., Hungaria korut 114)

Production and some physicochemical properties of p-amino-salicylic ester of polyvinyl alcoholate. Acta chimica Hung 41 no.4:431-434 '64.

1. Issledovatel skiy institut plastmassovoy promyshlennosti g. Budapesht.

WOLKOBER, Z.

Duration of action of materials for plant protection containing HCH. p. 210. KOZLEMENYEI, Budapest. Vol 8, no. 1/2, 1955.

SOURCE: EEAL Vol 5, no. 7, July 1956.

PHASE I BOOK EXPLOITATION SOV/4984	International symposium on macromolecular chemistry. Moscow, 1960. Mechdunarodnyr simporium po makromolekulyarnoy khimil SSSR, Meskra, 14-18 inyna 1960 g.; doklady i avtoreferaty. Saktalya III. (International Symposium on Macromolecular Chamistry Stald in Moscow, June 14-18, 1960; Papers and Summarty Section III. (Moscow, Izd-ro AN SSSR, 1960) 469 p. 55, Soco copies printed.	.: P. S. Kashins. ng Agnoy: The Internations stry. Commission on Macrosco	WINDORS: This book is intended for hemists interested in polymmerization reactions and the synthesis of high molecular acquounds. GOVERAGE: This is Section III of a multivolume work containing papers on macromolecular chanistry. The articles in general deal with the Kinetias of polymerization reactions, the griticals in special with the Kinetias of polymerization reactions, the gritical special interior of sections of polymerizations, senion excepting a string polymerization reactions, properties and cheatest linearchious factors on polymerization and the effects of various factors on polymerization and the degradation of	Raterences given follow the articles. Raterences given follow the articles. Rater, T. I., and J. Konzider (Foland). Chlorination of Phenol-Pormidathyde Resins. Alexander, L., M. Opris, and A. Giognel (Rurnis). Crancethyl and Aninopropyl Ethers of Polyvinyl Alcohol.	Te. M. (USSR LELLON R. F. F. LING)	Molkóper Z./T. Rolly, sed O. Murzó (Rugary). The Inter- action of Resatic Anines and Polyvinyl Chicaride Gerderlih, H. A. B. E. Beydov, and R. M. Witzenko (USSR), The Froduction of Polymeric Materials Which Exhibit Semiconductor Properties Mikes I. A. and L. I. Korfca (Rungary). Chemical Properties	Ffect of the Struc- perties of Anion he Effect of the esses Between	Troutenand and troperises of lower formers 113 Troutenanday 16, V. I. F. 100ev, A. S. Tevilla. S. B. Makarya. G. Z. Nefedow, and M. Heiterjan. S. B. Corversions of Insoluble Copolymers of Styrens 124 Lindeaum. J. (Poland). Thermal Stability of Strongly Sasts Anion Exchange Resins	
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S/081/62/000/022/079/088 B101/B186

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Wolkóber, Zoltán

AUTHOR:

Method for increasing the heat resistance of chlorine-

containing polymers

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 22, 1962, 551, abstract 22P448 (Hung. patent 148671, December 15, 1961)

TEXT: A patent is granted for a method of stabilizing chlorine-containing polymers in the presence of nitric acid, a mixture of nitric acid with organic acids, or the compound Al(NO₃)₃ which decomposes at the processing temperature of the polymer with formation of HNO₃ and NO₂. Example:

1 part powdered Al(NO₃)₃ is mixed with 1 part stearic acid at ~20°C to form a homogeneous powder. To polyvinyl chloride without plasticizer,

1 - 2 % of the stabilizer prepared is added within 10 min during the rolling at 150°C. The polymer obtained is more stable than polymers containing other stabilizers, e.g. 1 % lead stearate, and avoids having to use toric Sn and Pb compounds. [Abstracter's note: Complete translation.]

Card 1/1

WOLKOBER, Zoltan

Thermic decomposition of polyvinyl chloride in presence of catalysts. Magy kem lap 16 no.2:79-83 F '61.

1. Szerves Vegyipari es Muanyagipari Kutato Intezet.

. 3662% G/004/62/009/004/003/008 D029/D109

15,8050

AUTHORS:

Wolkober, Z., Graduate Chemist, Candiate, and Laczko,

Martha, Graduate Chemist

TITLE: The stability of polyvinyl chloride in the presence of

nitrating acids

PERIODICAL: Plaste und Kautschuk, vol 9, no. 4, 1962, 169 - 172

TEXT: The authors conducted experiments in order to establish the effects of various types of nitrate stabilizers for softener-containing and hard PVC types. Investigations concerned optimum stabilizer quantities - generally 0.4 - 1% of aluminum nitrate -, colors, mechanical properties during rolling, changes during artificial aging, stability against heat, etc. in comparison to such values of lead stearate. Aluminum nitrate and aluminum nitrate - stearate mixed salts can replace lead stearate. Mechanical properties are not impaired, and heat and rolling stability is equal or better. Aluminum nitrate stabilizers protect against ultraviolet and high-energy X-rays. New type stabilizers produced by fusing aluminum nitrate and aluminum

Card 1/4

G/004/62/009/004/003/008 D029/D109

The stability of polyvinyl chloride ...

aluminum stearate - i.e. by mutual effects of aluminum stearate and nitric acid - are in some respects better than aluminum nitrate. They have also a lubrication effect and are less sensitive against over-dosage. Investigations revealed that nitric acid hinders the cleaving-off of hydrochloric acid in absolute sulfuric acid at temperatures below 150°C. At 175°C, there is no difference in the characteristics of the decomposition speed in the presence of sulfuric acid or nitrating acids. There is, however, a fundamental difference in the decomposition mechanism, inasmuch as the structure of PVC changes under the influence of sulfurio acid whereby a sulfurized PVC results, whereas in the presence of nitrating acids the PVC oxidizes without altering the remaining portion. The most important findings were that PVC in nitrating acid is decomposed into hydrochloric acid and carbon dioxide without an essential alteration of its structure. The molecular weight of the remaining portion decreases nearly proportionally to the decrease of weight. The sulfurized PVC has some interesting properties in nitric acid of 100°C. The black, crosslinked, and in organic solvents insoluble product is oxidized by nitric acid. The remaining portion corresponds to the PVC and is soluble in organic solvents. If

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G/004/62/009/004/003/008 D029/D109

The stability of polyvinyl chloride ...

sulfurized PVC is nitrated under cooling, a large part dissolves in nitric acid. The remainder is unaltered PVC. A product the composition of which is not yet known and which contains 8.4% nitrogen, can be salted out from the nitric acid solution by a concentrated sodium chloride solution. The water-soluble reddish-brown product has a low viscosity and disintegrates when heated. A new theory of the disintegration mechanism of the PVC (on sulfurization) is proposed: The chain member of the PVC molecule from which the decomposition starts has a double bond or hetero-atoms. A double bond may be established also at a medium member of the chain by cleavingoff a chlorine atom whereby the temporarily formed macroradical stabilizes by formation of an allyl structure. The formation of only one double bond may lead to the dehydrochlorination of the whole chain molecule if it is not prevented by a stabilizer. The stabilizer, in the given case nitric acid, reacts at a higher speed with the macroradical or the double bond than the decomposition reaction proceeds. The nitric acid either oxidizes the double bond or is added to it. The establishment of the velocity constants indicates that the heat stability of PVC is extremely high if a suitable stabilizer is used. Nitric acid is a stabilizer of that sort

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The stability of polyvinyl chloride...

D029/D109

which stabilizes PVC against absolute surfuric acid at temperatures over 100°C.

ASSOCIATION: Forschungsinstitut für die Plastindustrie (Research Institute of the Plastics Industry) Budapest

SUBMITTED: Dec 5, 1961

ERDEY-GRUZ, Tibor, akademikus; BRUCKNER, Gyozo, akademikus; LENGYEL, Bela; TELEGDY-KCVATS, Laszlo, a tudomanyok doktora; HARDY, Gyula, kandidatus; GERECS, Arpad, akademikus; FOIDI, Zoltan; WOIKOBER, Zoltan; TUDOS, Ferenc, kandidatus; PURMAN, Jeno; KRAUSZ, Imre, kandidatus; ERDEY, Laszlo, akademikus; SCHAY, Geza, akademikus

An account of the 1961 work of the Section of Chemical Sciences, Hungarian Academy of Sciences. Kem tud kozl 18 no.3:343-394 162.

1. Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak titkara, es "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" szerkesztoje (for Erdey-Gruz). 2. Akademiai levelezo tag (for Lengyel and Foldi). 3. "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" szerkeszto bizottsagi tagja (for Bruckner, Erdey, Foldi, Gerecs, Hardy, Lengyel, Schay, Tudos).

KRISTON, Pal; WOLKOBER, Zoltan

Chlorinated and sulphochlorinated polyethylene. Magy kem lap 19 no.5:262-269 My '64.

1. Research Institute of the Plastics Industry.

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Academic De	- mot given=		ean 1961 . pp	529-539•	
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_X	CULESCU, V., -Dr IKONSKY, Al., -Dr NCIU, Elena, -Dr				
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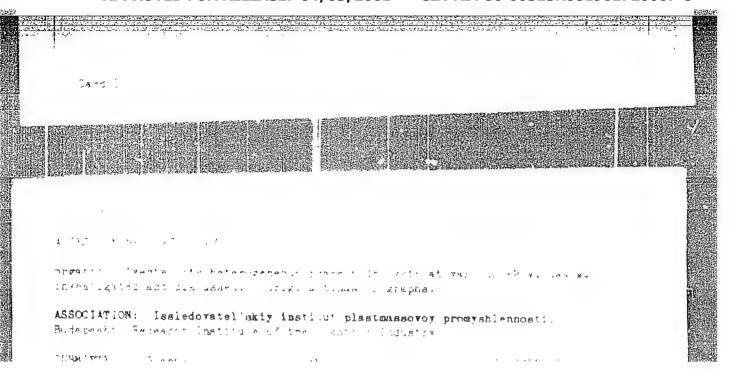
WOLKONSKI, H.

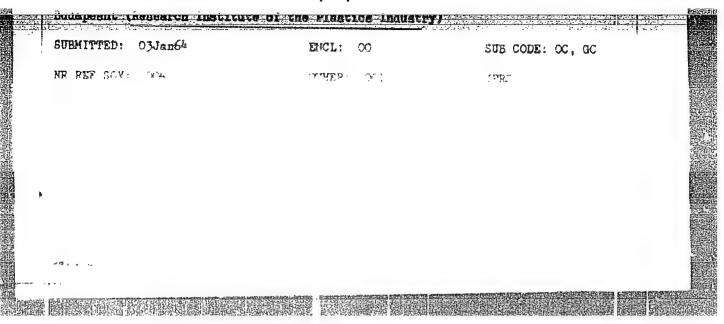
"Method of standardizing the consumption of fabrics for light dresses by mass cutting. Tr. from the Russian." p. 190. (ODZIEZ. Vol. 5. No. 10, Oct. 1954. Ledz. Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4, No. 4. April 1955, Uncl.

WOLKONSKI, H.

"Improvement of the maltiform manufacturing process of a sectional system.
Tr. from the Russian." p. 193. (ODZIEZ. Vol. 5, No. 10, Oct. 1954. Ledz, Poland)
SO: Monthly List of East European Accessions. (EEAL). LG. Vol. 4, No. 4.
April 1955. Uncl.





WOLKOW, L.

Method for quick determination of the compression of pulp. Tr. from the Russian. p. 274. (PRZEGLAD PAPIERNICZY, Vol. 10, No. 9, Sept. 1954, Lodz, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

MEDUSKI, Jerzy; WOLKOWA, Margarita

Determination of molecular weight of Clostridium perfringens welchii phospholipase C inactivated by gamma rays. Med. dosw. mikrob. 10 no.2: 247-254 1958.

1. Z Panstwowego Zaklady Higieny w Warszawie i z Instytutu Biochemii im. A. N. Bacha w Moskwie.

(CLOSTRIDIUM PERFRINGENS, phospholipase C. molecular weight of gamma-ray inactivated prep. (Pol))

(TRANSPHOSPHOHYIASES,

phospholipase C from Clostridium perfringens, molecular weight of gamma-ray inactivated prep. (Pol))

(GAMMA RAYS, effects, Clostridium perfringens phospholipase C inactivation, molecular weight (Pol))

WOLKOWICZ, C.

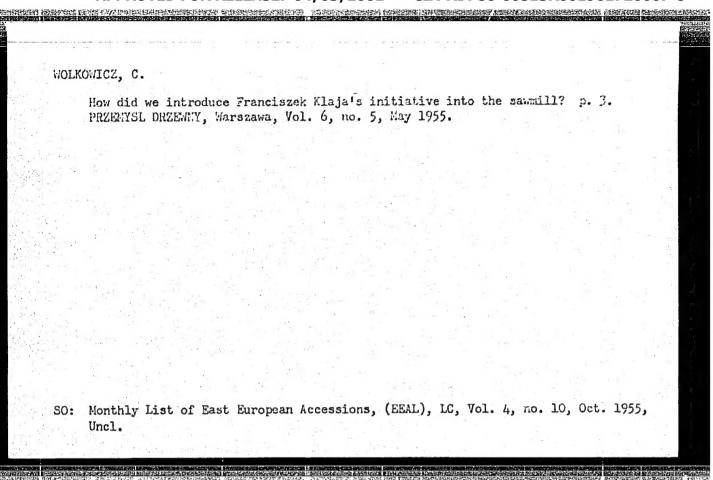
"Applying the Zhandarova system to the woodworking industry." p. 2. (Przemysl Drzewny, Vol. 4, no. 7, Jul 53, Warszawa)

SO: Monthly List of East European Accessions, Vol 3 No 6 Library of Congress Jun 54 Uncl

WOLKOWICZ, C.

"The Kovalev Method in Polish Forest and Wood-Using Industries." p.6 (PRZEMYSL DRZEWNY Vol. 4, no. 8, Aug. 1953 Warszawa, Poland)

SO: Monthly List of East European Accessions, LC, Vol. 3, no. 5, May 1954/Uncl.



Wolkowicz, C.

We plant trees. p.21

(LAS POISKI. Vol. 31, No. 7, April 1957. Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 10, October 1957. Uncl.

WOLKOWICZ, C.

AGRICULTURE

Periodicals: LAS POLSKI Vol. 31, no. 21, Nov. 1957

WOLKOWICZ, C. For an increase of woodlands in the Zulawy area. p. 2.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 2, February 1959, Unclass.

WOLKOWICZ, C.

Peasants' contracts for poplar. p. 20.

LAS POLASKI. (Ministerstwo Lesnictwa oraz Stowarzyszenie Naukowo-Techniczne Inzynierow i Technikow Lesnictwa i Drzewnictwa) Warszawa, Poland. Vol. 32, no. 8, Apr. 1958.

Monthly List of East European Accession (EEAI) LC, Vol. 9, no. 1, Jan. 1960. Uncl.